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Swanson, Greg

From: Moorhead, John
Sent: Tuesday, November 05, 2002 1:19 PM
To: Frady, Greg; 'Mitchell, Bill'
Cc: Oliver, Karen; Ortega, Rene; Swanson, Greg; Brunty, Joseph; Harris, Donald L; Aggarwal, Pravin; Kelley, Tim
Subject: RE: 2nd impeller KE seal

Greg,

- 1) I think that if we believe that in 11 starts a piece can be liberated, then the number one thing we have to do is develop rationale to safely fly with pieces coming off.
- 2) You are right about the value of additional testing of this seal in a different turbopump, different engine, different flow thru seal, etc.

-----Original Message-----

From: Frady, Greg
Sent: Tuesday, November 05, 2002 12:55 PM
To: Moorhead, John; Kelley, Tim
Cc: Oliver, Karen; Ortega, Rene; Swanson, Greg; Brunty, Joseph; Harris, Donald L; Aggarwal, Pravin
Subject: RE: 2nd impeller KE seal

John,

I have a couple of issues I have addressed to Ya Ya who working this issue for Pratt. They are:

1.) Do we know if the crack will turn in such a manner that we liberate pieces of hardware during engine testing? Will this cause engine/pump damage?

2.) Do we know if this will be a valid fleet-leader test article for SSME flight rationale? My concern is that this is an intermittent problem. If we place this hardware back into another pump, we may not duplicate the conditions that caused the cracking initially. Since the root cause has never been identified, it is uncertain whether we can reproduce the critical loading for this fleet leader hardware. If this is the case, then we will not have a valid fleet-leader and will give us a false sense of confidence that may be detrimental to us at a later date. I see this as the real safety concern if we can't answer this with great confidence.

If you would like to discuss this more, I am available and would like for stress to be included in the discussion.

Thanks,

Greg

-----Original Message-----

From: Moorhead, John
Sent: Tuesday, November 05, 2002 10:57 AM
To: Frady, Greg; Harris, Donald L
Subject: 2nd impeller KE seal

<< File: 00wa329-110502.ppt >>